

CHATTANOOGA TREE ADVISORY COMMISSION

David Hopkins, Chairman

Cliff Betts

Ann Huckaba

Sharon Mills

Kim McClurkin

Leroy Parks

Greather Tinker

CITY OF CHATTANOOGA

Jon Kinsey, Mayor

City Council

District 1	John Lively
District 2	Mrs. Mai Bell Hurley
District 3	David Crockett, Chairman
District 4	Don Eaves
District 5	John P. Franklin Jr.
District 6	Ms. Marti Rutherford
District 7	John R. Taylor
District 8	Leamon Pierce
District 9	Yusef Hakeem

Parks and Recreation Committee Members

Marti Rutherford, Chairman

John P. Franklin Jr.

Mai Bell Hurley

John R. Taylor

Department of Parks and Recreation

Jerry Mitchell, Administrator

Larry Zehnder, Deputy Administrator

John Gunn, Superintendent of Parks

URBAN FORESTRY MANAGEMENT IN CHATTANOOGA, TENNESSEE 1998

The goal of this program is to provide professional management for the portion of the City's valuable forest that is located in parks, greenways, cemeteries, and along 1200 miles of public rights-of-way. The City has a legal obligation to keep its streets safe. In addition, healthy trees in the right place provide a more inviting and attractive environment; help reduce air pollution by absorbing carbon dioxide and other particulate matter; provide wildlife habitat; attract visitors to the City; and improve property values, thus increasing the tax base.

TABLE OF CONTENTS

INTRODUCTION	1
I. STORM DAMAGE	2
II. COMPREHENSIVE URBAN FORESTRY PLAN	3
III. MAINTENANCE AND SERVICE REQUESTS	5
IV. CONTRACTS	7
V. ROTATIONAL PRUNING	8
VI. PRUNING FOR PAVING CLEARANCE	8
VII. TREE PLANTING	8
VIII. THE GATEWAYS PROGRAM	9
IX. PERMITS	10
X. GRANTS	10
XI. ARBOR DAY	11
XII. THE TREE ADVISORY COMMISSION	11
XIII. PERSONNEL	11
XIV. URBAN FORESTRY GOALS FOR 1998	12
XV. OUR URBAN FORESTRY WEBPAGE.....	13
APPENDIX I.....	14
APPENDIX II.....	14

INTRODUCTION

The Urban Forestry program operates as a separate division of the Parks and Recreation Department. It is guided by a seven-member Tree Advisory Commission appointed on staggered terms by the mayor. The Forestry staff consists of the City Forester, Forestry Supervisor, and a three-man crew. The Forestry Division draws on other elements within both the Parks Department and Public Works to assist with tree planting, emergency service requests and other situations. The program's main operating budget for F.Y. '97-'98 of \$292,852 is derived strictly from annual appropriations.

Sample inventories conducted in 1993 indicate that there are a minimum of 27,000 trees in the street rights-of-way and parks. Since then, another 100 miles of streets have been annexed into the City, thus increasing the tree count. Currently the Forestry Division does not have sufficient funding to perform routine maintenance along these 1200 miles of streets and parks. However, routine maintenance is given to the downtown and Streetscapes trees which now total about 1000. The year 1998 may be remembered as the "Year we nearly caught up!" The number of uncompleted service requests went from a high of 531 in 1996 to by the end of 1998. With this backlog now mostly behind us we should now be able to devote more time and effort to cyclical pruning and routine maintenance. This story and others which will be further highlighted in this report include:

Section

- | | |
|---|------|
| 1. Storm damage, including the Christmas Eve ice storm. | I |
| 2. The backlog of service requests is greatly reduced. | III |
| 3. Rotational pruning is now a reality. | V |
| 4. Personnel changes. | XIII |
| 5. Our new website debuts. | XV |

This report is prepared annually by the City Forester at the request of the Tree Advisory Commission. It is intended to give the reader a snapshot view of the planning and operations of the Forestry Division for the indicated year. Figures used in this report are generally reliable, although a few still remain "our best estimate." Any questions about this report should be addressed to:

Gene Hyde, City Forester
Parks and Recreation Department
1254 East 3rd Street
Chattanooga, TN 37404
(423) 697-1315

I. STORM DAMAGE

This year brought us several major storm events. Each is discussed below:

A. The June 15th Storm.

In the early morning hours of Monday, June 15, a very powerful thunderstorm rumbled through the City of Chattanooga causing widespread destruction. Cleanup costs are listed below:

1. Urban Forestry (36 requests)	\$3,374.00
2. Asplundh (7 requests)	1,332.00
TOTAL	\$4,706.00

B. The Christmas Eve ice storm.

As the cold rain fell late in the afternoon of December 23 the temperature hovered right at the freezing mark of 32 degrees. Some of the rain melted but some clung onto the wires, trees and roads. Those who live in the valleys were spared the worst of the damage but the areas in the mountains and ridgetops took the brunt of the storm. Our in-house crew worked for thirty hours without stopping and was assisted for most of the night by elements from the Landscape Shop and the Construction Crew. Although the cleanup will extend into 1999 the costs associated with the storm are shown below:

1. Parks crews (35 requests)	\$2,187.00
2. Public Works crews	cost information unavailable
TOTAL	\$2,187.00

II. COMPREHENSIVE URBAN FORESTRY PLAN

In January, 1994, the City of Chattanooga and the Tree Advisory Commission formally received the Comprehensive Urban Forestry Plan as developed and presented by the firm of ACRT. Key elements of this plan are being addressed and implemented. These include:

A. Short-term goals

1. Obtain and maintain sufficient funding. The Forestry Division's budget has increased slightly every year for the past four years which has allowed for the hiring of a full-time in-house crew (1994) and for the increase in the contractual funds account. The operating budget decreased in Fiscal Year '98-'99 to \$292,852 which is an decrease from last year's amount by 3.3%. Previous increases have allowed us to stretch a one-year contract over two fiscal years with Asplundh for prunings and removals. We shall continually strive to get to the point at which we will be able to have a full-time contract crew year-in and year-out. In late 1997, we decided to offer Asplundh a one-year extension on their contract and they accepted. But because of funding shortfalls, Asplundh was able to work for only nine months. Nonetheless, this one-year contract has allowed us to significantly reduce our backlog of service requests.

2. Reduce the risks to public safety to tolerable levels. Hazard reduction consists of three major elements:

A. Traffic control sign clearance:

stop signs
street markers
stoplights

During the past year a significant effort was made to give these requests the highest priority for quick service, usually in the same day.

B. Hazard Tree Removal and Hazard Pruning. Hard numbers for this category are difficult to obtain with our current system of record keeping. However, we did perform the following:

Hazard removals	91 removals	\$32,153.00
Hazard prunings (deadwooding)	13 prunings	\$6,419.00

C. Stump Removal.

Roy's Tree Service as of 12-1-97	85 stumps ground	\$4,220.00
-------------------------------------	------------------	------------

3. Provide service levels that fulfill the public's expectations from the Urban Forestry program. Our contractor, Asplundh, completed their 12-month contract extension in November. They completed a total of 147 service requests at a cost of \$91,654.00. In addition to hazard removals and storm damage, a continuation was made for cyclical pruning. Meanwhile, the in-house crew worked on both current requests as well as trying to whittle away at the backlog.

Our response time for each level of completed service request in 1998 can be compared against our ideal time goal in the chart below.

	Priority Level	Ideal	1998
Emergency:	1	1 day	2 days
Priority Maintenance	2	14 days	12 days
Routine Maintenance	3	28 days	13 days

Response times fell within acceptable levels in all three categories indicating that we have have been successful in achieving this goal.

B. Mid-Range Goals

1. Expand public and governmental awareness of the benefits provided by Chattanooga's urban forest and the need for professional management. The distribution of the brochure, "Planting Trees in Chattanooga," assisted us with this task. But this educational mission continues. The Forestry Division staff takes this effort seriously and makes presentations to schools, professional organizations, and service organizations.

2. Provide for the perpetuation and enhancement of the urban forest. This is done on a regular basis by the planting of young trees and the removal of hazardous ones.

3. Establish a routine maintenance program for the trees in the central business district. Newly planted trees in this area are placed on a program of watering, pruning and fertilization. Mature trees are pruned on an "as needed" basis. A standard pruning cycle has not yet been established for the approximately 2000 trees in this area. This will occur as the program grows and advances.

4. Expand cooperation with other agencies and organizations both within and outside of the city structure to ensure that trees are included in the planning process and that compatibility with other infrastructure elements is improved. To help ensure that this occurs, the Forester:

- a. meets and coordinates with Public Works officials on a weekly basis,
- b.attends pre-construction conferences,
- c. meets with contractors on-site to discuss construction details.

It is anticipated that the Urban Forestry Plan will be updated in 1999 and should be valid for another five years. Although many of the goals will remain the same, there will probably be new challenges to address in the updated version.

III. MAINTENANCE AND SERVICE REQUESTS

Information on service requests is entered daily on a small PC using the Tree Manager software program from ACRT. The following data represents calendar year 1998.

All service requests were inspected by the Forestry Division and assigned a priority ranging from routine to emergency. During 1998 a total of 621 requests were received with the following assigned priorities:

Emergency	Priority 1	260	41.9%
Priority Maintenance	Priority 2	319	51.4
Routine Maintenance	Priority 3	42	6.7
TOTAL		621	100.0%

The types of requests received by category for 1998 are shown below:

		Cost	
Brush	1	0.2%	\$ 50.00
Brush/Pickup	120	19.3	11,083.00
Cyclical Prune	6	1.0	15,153.00
Deadwood	2	0.3	3,307.00
Emergency	188	30.3	16,592.00
Hazard	33	5.3	3,640.00
Inspect	38	6.1	791.00
Paving pruning	27	4.3	9,830.00
Prune	129	20.8	28,877.00
Remove	69	11.1	19,222.00
Remove for Public Works	8	1.3	3,007.00
TOTAL	621	100.0%	\$111,552.00

In 1998, a total of 768 service requests were either completed or "written off" as no longer valid. All uncompleted service requests in all Council Districts were inspected in the spring and summer, and a total of 50 of these were judged to be no longer valid. During this time the top ten most critical service requests in all Districts were finally completed. All service requests completed this year were done so by our in-house crew, Asplundh, Parks Department crews, Public Works crews,

Electric Power Board crews, private citizens and private tree firms. There are many service requests that are handled by the "after hours" Public Works crews so we are not really getting the true and full picture of what is happening with the urban forest. But analysis of our completed service requests is shown as follows:

Service requests received in 1998 and completed in 1998:	616
Requests received prior to 1998 but completed in 1998:	152
TOTAL	768

This also means that only five service requests received in 1998 have yet to be resolved. When added to the uncompleted backlog from previous years, we now have a total uncompleted balance of 41 service requests. It appears that we are continuing last year's trend of solving more service requests than we are receiving and have now achieved the enviable position of having only a small backlog of requests. See Tables 1. and 2. below.

Table 1. Total number of service requests received by year and the end-of-year total backlog.

Year	# requests received	Year end backlog
'92	704	270
'93	829	377
'94	590	477
'95	849	531
'96	657	374
'97	584	197
'98	621	41

Our ability to solve service requests in the past several years has grown to the point that we have made significant progress in solving backlogged requests. Asplundh just completed a two-year contract and resolved a total of 332 requests. This reduction in the backlog of service requests and the correlating increase in percentage of service requests solved in 1998 can be attributed to two factors:

A. The increased amount of time that our contractor, Asplundh, was able to work this year.

B. The spring and summer inspection trips through all Council Districts to evaluate existing service requests. At this time dozens of service

requests were changed from active to completed because the problem could not be found or had been completed by some source other than the City.

Table 2. Percentage of service requests solved per year versus the number received per year.

Year	Percent
'92	66%
'93	86%
'94	90%
'95	93%
'96	121%
'97	127%
'98	125%

This graph shows that in 1996 we began to "turn the corner" on our backlog and began the difficult task of eating into the huge glut of service requests that have gone unsolved for as long as five years. We continued this trend in 1998 and will work hard to keep a low balance in 1999.

IV. CONTRACTS

On October 21, 1996, the City entered a one-year contract (with a one-year renewal option) with Asplundh to furnish the City with a three-man crew with a bucket truck and chipper for \$58.55 per hour. Asplundh also agreed to furnish a crane truck for an additional \$20 per hour. With these humble beginnings we have made great strides in meeting the challenges that are presented to us each year. The contract crew was used as the "heavy artillery" so to speak because they were tasked with the responsibility of tackling the most difficult removals, as well as the cyclical over-the-road pruning jobs. Towards this end they did a wonderful job. Unfortunately, Asplundh was laid off in November, 1997, because there was not enough money in the budget to carry them for another full 12-month contract. But they were put back to work in February, 1998, and their "renewal" contract ran through October, 1998.

The contract was again put out for bid in late summer and the low bidder is Wolf Tree Company which is headquartered in Knoxville. Wolf will provide the standard three man crew with bucket and chipper for the sum of \$60.84 per hour. They have agreed to also provide a crane truck for \$19.26 per hour for the first year of the contract. Their work will commence in

February, 1999. The City has an option to renew the contract for an additional year at these same prices after the initial year has expired.

Contract expenditures for 1998 are listed below:

A. Asplundh Tree Company, prunings & removals, 147 requests:	\$ 91,654.00
B. Roy's Tree Service, 85 stumps ground down:	4,220.20
C. Stoneworks, 21 planter pits relaid with pavers:	2,625.00
TOTAL	\$ 98,499.20

V. ROTATIONAL PRUNING

The best future for the trees in Chattanooga lies with a program of routine maintenance including rotational (cyclical) pruning. This is a program of proactive tree care and is based on pruning all trees on the City rights-of-way in cycles of five years. The City Forester has already divided the city into 50 smaller parcels in anticipation of implementing this strategy. There were a number of streets that were so overgrown that it was necessary to perform cyclical pruning on them to clear branches which grew over and into the streets. A total of 16 streets were given this treatment at a cost of \$32,302. There should be a lot more information about this section in years to come.

VI. PRUNING FOR PAVING CLEARANCE

The Forestry Division assisted Public Works by providing pruning assistance just ahead of the paving crews as they progressed around Chattanooga. Trees were pruned to a height of 20' and also pruned back to the edge of the road to provide both overhead and lateral clearance for the milling equipment, paving equipment, and dump trucks. Asplundh performed all the work in this category in 1998 by pruning approximately 40 streets at a cost of \$9,830.00.

VII. TREE PLANTING

A. Krystal Farm Nursery

This year's harvest yielded approximately 1200 plants and shrubs for the 1996-1997 planting year. Most of these plants went to other organizations and agencies. However, a list of the plants which we received is detailed below:

1. Pin Oak

35

2. Leland Cypress	22
3. Shumard Oak	2
4. Yellow-poplar	3
5. 'Nellie Stevens' Holly	18
Sub Total	80

B. Trees purchased from wholesale nurseries.

1. 'October Glory' Maple	2
2. Pink Dogwood	4
3. Willow Oak	29
4. Green Ash	13
5. 'Williamette' English Oak	6
6. 'Prairiefire' Crabapple	2
7. 'Village Green' Zelkova	7
8. 'Armstrong' Red Maple	4
9. Hedge Maple	2
10. Silver Linden	5
11. Yoshino Cherry	1
12. European Hornbeam	1
13. Redbud	1
14. Sawtooth Oak	6
Sub Total	83

Total planted by Parks and Rec. 163

VIII. GATEWAYS PROGRAM

The Area Beautification Committee of the Chattanooga Chamber of Commerce administers the Gateways Program. The intent of this program is to provide landscaping enhancements along 42 miles of highways and gateways into the city in order to allow the city to put its "best foot forward". Such improvements help attract tourists and new industry into the city, as well as provide a pleasant driving environment for area residents.

In 1998 the City of Chattanooga contributed \$100,000 to this program for capital expenditures and maintenance. In 1997 the Highway 153-Hixson Pike intersection was designated as a "gateway" and the process was begun to complete landscaping plans and install watering systems. Approximately 88 crape myrtles were also planted at this intersection. Attention this year was given to maintenance since the year was marked by extreme drought in the summer.

IX. PERMITS

A. In general, any business or individual must obtain a permit from the City Forester before engaging in any pruning or ground disturbing activity around any City-owned tree. The Forester will outline in a permit what standards of practice to follow. There were five permits issued in 1998. The forester also distributed the following publications to enlighten contractors as to their responsibilities when working around trees:

1. An Arboricultural Specifications Manual which was adopted by City Council in April, 1996, and details standards of practice that contractors are to follow.
2. A small flier entitled, "The Ten Commandments of Tree Protection", which is a flier and a pocket-sized version of the Arboricultural Specs Manual.

B. Permit Violations

There was one permit violation worthy of mention in 1997 that was revisited in 1998. The manager of the Soulman Shop requested on several occasions in September, 1997, that two willow oaks be pruned in front of their new shop at 702 Market Street. Both times the request was completed within a few days. Then in late October the trees were severely pruned by people working for the Soulman Shop. The word "pruned" is probably inappropriate to use in the sense that this word suggests a degree of skill and knowledge. The Forester cited the Soulman manager to court but an out-of-court accord was reached in which the Soulman shop agreed to pay for the removal and replacement of either or both of the trees should either tree die or demonstrate by next summer that their crowns will not fill back in. The Forester made the determination in October of 1998 that neither removal nor replacement was necessary. Therefore the violator was let go with a stiff warning.

X. GRANTS

In 1998, a grant was received from the Tennessee Division of Forestry to hire Sandra Downey, a recent Auburn University graduate, as our summer Urban Forestry Intern. Sandra was instrumental in assisting us with updating our computerized inventory and our filing system. Sandra also worked with the crew.

Another Forest Service grant was made to Chattanooga in late 1998 which will allow for the hiring of another summer intern in 1999.

XI. ARBOR DAY

The 1998 Arbor Day celebration was held on March 6 at the John P. Franklin School to honor Mrs. T. A. (Callie) Key who was a Scenic Cities Beautiful Board member and long-time community activist who gave many volunteer hours to the community in an attempt to make Chattanooga neighborhoods cleaner, brighter, and a more beautiful place for all to live. An oak tree was planted at the school in her honor.

This ceremonial planting fulfilled one of the requirements of the National Arbor Day Foundation for recertification of Chattanooga as a Tree City Community. Other requirements include:

- A. Have an active Tree Board that meets at least twice yearly.
- B. Have a viable Tree Ordinance.
- C. Have a community forestry program that annually spends at least two dollars per capita.

Chattanooga has received this award yearly since 1990.

XII. TREE ADVISORY COMMISSION

In December, 1998, Mayor Jon Kinsey appointed two Tree Commission members to terms which will expire on December 1, 2001. They are:

- A. Ann Huckaba
- B. Kim McClurkin

David Hopkins is the chairperson for the current term which lasts until June, 1999.

XIII. PERSONNEL

The year 1998 brought changes to the Urban Forestry staff. Charlie Moore decided to pursue work in the private sector. His old position was filled by a long-time employee of Asplundh by the name of Gerald Case. All city positions were reviewed and reclassified as appropriate during 1998 by the firm of David M. Griffith & Associates, Ltd. located in Atlanta, Georgia. Therefore, the positions and personnel for Urban Forestry at the end of 1998 are listed as follows:

- A. Equipment Operator. Billy Blake
- B. Tree Trimmer. Gerald Case
- C. Crew Supervisor. Kevin White
- D. Forestry Supervisor. Rick Cooper
- E. Municipal Forester. Gene Hyde

XIV. URBAN FORESTRY GOALS FOR 1998

A. Programatic Goals

1. Provide technical and administrative assistance to the Gateways program.
2. Continue with the planning and coordination of the Krystal Farm Program.
3. Distribute the Arboricultural Specifications Manual to architects, engineers, contractors, tree companies, and others.
4. Distribute the "Planting Trees in Chattanooga" brochure to all interested parties.
5. Hire an intern for the three month summer season.
6. Update the Master Tree Planting Plan for some of the major thoroughfares.
7. Update the five-year Urban Forestry Plan.

B. Operational Goals

1. Reduce the backlog of service requests to less than 30.
2. Prune 500-600 trees in the downtown streetscapes area.
3. Continue the operational procedures of cyclical pruning to the maximum extent possible with our new contractor, Wolf Tree Co.

C. Crew Goals

1. Continue the process of trying to learn to correctly identify all native trees and a few ornamental trees in the Chattanooga area.
2. Keep on-the-job injuries low through a regular program of safety and training to include:
 - a. "Tailgate sessions"
 - b. More formal class sessions to include, "Electrical line and Hazard Identification".
 - c. More regularly held sessions to review such procedures as bucket truck rescue procedures.
3. Keep equipment maintained and performing in top operating condition.
4. Increase operational effectiveness through:
 - a. hiring fourth crew member who can give us the possibility of two 2-man crews for emergencies, to assist with flagging, and to prevent work slowdowns when one member of the current crew is away from work.
 - b. purchasing a new contractor's truck to fill our needs for a reliable truck.

XV. OUR URBAN FORESTRY WEBPAGE

Planning for a special webpage for our urban forestry operations began back in December, 1997. The original intent was to create a website that would be informative, interactive, and entertaining. A lot of thought was put into the creation of this site and through long discussions with the I.S. (Information Systems) section along with their help and assistance, we now have our website. There are some finishing touches that will be completed in the year 1999 but the website is near its final form. Any person interested in viewing this site can find us at:

www.chattanooga.gov/urbanforestry/

APPENDIX I

Copies of photos and newspaper stories

APPENDIX II

The author of this report would like to gratefully acknowledge the assistance of the following people who were absolutely essential in helping to produce this report.

A. Proofreading: Joyce Newton
Parks and Recreation Department

B. Desktop Publishing: Greg Haynes
Chattanooga-Hamilton County Regional Planning Agency